

WE CLAIM:

1. A handheld device configured to communicate with an implanted device using inductive telemetry, comprising:
 - a battery powered controller; and
 - a battery powered inductive coil controlled by the controller and configured to communicate with an inductive coil of the implanted device using inductive telemetry.
2. The handheld device of claim 1, further comprising a first battery voltage source that powers the controller and the inductive coil.
3. The handheld device of claim 1, further comprising a first battery voltage source that powers the controller, and a second battery voltage source that powers the inductive coil.
4. The handheld device of claim 2, further comprising a switch having open and closed positions, wherein when the switch is open the first battery voltage source powers only the controller, and when the switch is closed the first battery voltage source powers both the controller and the inductive coil.
5. The handheld device of claim 3, further comprising a switch having open and closed positions, wherein when the switch is in the open position only the second battery voltage source powers the inductive coil, and when the switch is in the closed position the first and second voltage battery sources power the inductive coil.
6. The handheld device of claim 3, wherein the first battery voltage source provides a voltage of about 2 to 6 V and the second battery voltage source provides a voltage of about 2 to 12 V.

7. The handheld device of claim 3, wherein the first battery voltage source includes at least one silver oxide battery.

8. The handheld device of claim 3, wherein the first battery voltage source includes at least one rechargeable battery.

9. The handheld device of claim 3, wherein the second battery voltage source includes at least one low profile lithium battery.

10. The handheld device of claim 2, further comprising a voltage amplifying device that amplifies a voltage from the first battery voltage source that is provided to the inductive coil.

11. The handheld device of claim 2, further comprising a voltage reducing device that reduces a voltage from the first battery voltage source that is provided to the controller.

12. A circuit for a wireless handheld device configured for communicating with inductive telemetry, comprising:

- a first battery voltage source;
- a controller in parallel with the first battery voltage source; and
- an inductive coil in parallel with the first battery voltage source and controllable by the controller to communicate with a second device using inductive telemetry.

13. The circuit of claim 12, further comprising a second battery voltage source, wherein the first battery voltage source powers the controller and the second voltage battery source powers the inductive coil.

14. The circuit of claim 13, further comprising a switch connected between the first and second voltage battery sources, wherein the controller controls the switch

between an open position and a closed position, and when the switch is in the closed position the effective voltage provided to the inductive coil is equal to the voltage of the first battery voltage source plus the voltage of the second battery voltage source.

15. A method of powering a handheld device configured for communicating with a second device using inductive telemetry, the handheld device including a controller, an inductive coil, and a first battery voltage source, the method comprising:

- connecting the controller in parallel with the first battery voltage source;
- connecting the inductive coil in parallel with the controller and the first battery voltage source; and
- activating the inductive coil to facilitate inductive telemetry communication between the handheld device and the second device.

16. The method of claim 15, wherein the handheld device further comprises a switch connected between the battery voltage source and the inductive coil, the method further comprising the step of opening and closing the switch to control operation of the inductive coil.

17. The method of claim 15, wherein the handheld device further includes a second battery voltage source connected in parallel with the first battery voltage source, wherein the inductive coil is activated using power provided by the first and second battery voltage sources.

18. A method of powering a handheld device having a controller, an inductive coil, and at least one battery providing a battery voltage, the method comprising the steps of:

- powering the controller and the inductive coil with the battery voltage;
- and
- communicating with an implanted device using inductive telemetry.

19. The method of claim 18, wherein the handheld device includes a first battery providing a first battery voltage, and a second battery providing a second battery voltage, the controller being powered by the first battery voltage and the inductive coil being powered by the second battery voltage.

20. The method of claim 19, wherein the inductive coil is powered by the first and second battery voltages.

21. The method of claim 19, wherein the handheld device further comprises a switch connected between the first and second batteries, and the controller controls opening and closing of the switch to determine a battery voltage provided to the inductive coil.